

REMARKS

This Amendment and Response is filed in reply to the Office action dated March 2, 2007. Claims 1, 3-4, 6, 8, 15, 17-18, 20, 22, 29, 31-32, 34, 36 and 43 are amended and claims 2, 7, 16, 21, 30 and 35 are canceled. Claims 44-68 were previously canceled. Accordingly, after entry of this Amendment and Response, claims 1, 3-6, 8-15, 17-20, 22-29, 31-34 and 36-43 remain pending.

I. Claim Rejections Under 35 U.S.C. § 102

Claims 1-3, 6-17, 20-31 and 34-43 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,691,245 to DeKoning (hereinafter "DeKoning"). An anticipation rejection requires that each and every limitation of a claim be disclosed in a single prior art reference.

Initially, the rejection of independent claims 1, 15, 29 and 43 is addressed. Independent claim 1, as amended, includes the limitation "wherein the copy on write snapshot occurs without the data storage system being in a quiescent state." That is, the snapshot can be taken while the data storage system is being used. Independent claims 15, 29 and 43 include a similar limitation. DeKoning teaches a checkpoint procedure for synchronizing stored data in a mirrored storage system (see *DeKoning*, column 9, lines 63-66). While DeKoning employs a copy on write snapshot to do the checkpointing (see *DeKoning*, column 8, lines 24-44), DeKoning quiesces applications before performing the checkpoint (see *DeKoning*, column 10, lines 3-6 and Figure 6). Thus, DeKoning does not teach the limitation wherein the copy on write snapshot occurs without the data storage system being in a quiescent state as required by independent claims 1, 15, 29 and 43. As such, DeKoning is insufficient to anticipate independent claims 1, 15, 29 and 43 and such indication is respectfully requested.

The remaining rejected claims 3, 6, 8-14, 17, 20-28, 31, 34 and 36-42 all depend, either directly or indirectly, from one of independent claims 1, 15 and 29. Accordingly, these dependent claims are themselves patentable over DeKoning for at least the reasons set forth above and such indication is respectfully requested. This statement is made without reference to or waving the independent bases of patentability within each dependent claim.

II. Claim Rejections Under 35 U.S.C. § 103

Claims 4, 18 and 32 are rejected under 35 U.S.C. § 103(a) as being unpatentable over DeKoning in view of U.S. Patent No. 7,149,787 to Mutalik et al. (hereinafter "Mutalik"). Claims 5, 19 and 33 are rejected under 35 U.S.C. § 103(a) as being unpatentable over DeKoning in view of Mutalik, and in further view of Official Notice.

Claims 4-5, 18-19 and 32-33 all depend, either directly or indirectly from one of independent claims 1, 15 and 29. These independent claims are patentable over DeKoning for at least the reasons given above. While Mutalik discloses a means for acquiring and releasing a lock (see *Mutalik*, column 14, lines 47-57), it does not disclose the limitation wherein the copy on write snapshot occurs without the data storage system being in a quiescent state as required by the independent claims. Further, the Official Notice that it would have been obvious to one of ordinary skill in the art to have said lock mechanism be separate and independent from the first and second storage images also does not disclose such a limitation. Therefore, it is respectfully submitted that the independent claims 1, 15, 29 and 43 are patentable over DeKoning, in view of Mutalik, and in further view of Official Notice, and such indication is respectfully requested. Accordingly, dependent claims 4-5, 18-19 and 32-33 are themselves patentable over DeKoning, in view of Mutalik, and in further view of Official Notice for at least the same reasons and such indication is respectfully requested.

III. Conclusion

The Applicant thanks the Examiner for his thorough review of the application. The Applicant respectfully submits the present application, as amended, is in condition for allowance and respectfully requests the issuance of a Notice of Allowability as soon as practicable.

This Amendment is submitted contemporaneously with a petition for a one-month extension of time in accordance with 37 C.F.R. § 1.136(a). Accordingly, please charge Deposit Account No. 04-1415 in the amount of \$120.00, for a one-month extension of time fee. The Applicant believes no further fees or petitions are required. However, if any such petitions or fees are necessary, please consider this a request therefor and authorization to charge Deposit Account No. 04-1415 accordingly.

If the Examiner should require any additional information or amendment, please contact the undersigned attorney.

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Respectfully submitted,


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